Configuration Manual

DT4x3 Cordless Phones

27/1531-ANF 901 43 C 2014-01-12

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1 Introduction

This document is a guide for installing, configuring and maintaining functionality of Aastra DT4x3 DECT telephones.

1.1 Prerequisites

- Make sure that the following documents are available:
  - *User Manual, Aastra DT4x3 DECT Telephones,*
  - *Installation and Operation Manual, WinPDM, 12/1531-ANF 901 43*
  - *Installation and Operation Manual, CPDM3, 25/1531-ANF 901 43*
  - *Installation and Operation Manual, Desk PDM Charger, 20/1531-ANF 901 43*
  - *Installation and Operation Manual, Rack PDM Charger, 21/1531-ANF 901 43*

- Install WinPDM or CPDM3. See *corresponding Installation an Operational Manual above.*

  This enables customizing of the behaviour of the handset to suite each user profile and the specific PBX used in the system. Some functions can also be configured directly in the handset.

  The WinPDM is aimed for smaller sites where the handsets are within reach. The CPDM3 makes it possible to administrate the handsets centrally via a web interface without the need to collect them.

- Install a Desk PDM Charger or Rack PDM Charger. See the corresponding Installation and Operational Manual above.

  Note: In the case of IP-DECT and when CPDM3 is used, the charger is not needed.

1.2 Abbreviations and Glossary

ATEX/IECEx	ATmosphères EXplosibles Standard/guideline for explosion protection in the industry. IECEx is the same as ATEX for the rest of the world (not EU/EFTA). In this document, EX refers to ATEX/IECEx.
ELISE3	Embedded LInux Server: A hardware platform used for CPDM3.
IPDI	International Portable DAM Identity DAM (DECT Authentication Module) See IPEI for more information.
IPEI	International Portable Equipment Identity IPEI/IPDI is needed to enable network subscription of the handset. At delivery of the handset, IPEI and IPDI are the same and either can be used for network subscription. If one handset is replaced with another using the Easy replacement procedure, the IPDI will be exchanged and IPEI and IPDI will no longer be the same. If the IPEI and the IPDI differ, the IPDI shall be used for network subscription.

PBX	Private Branch Exchange: handset system within an enterprise that switches calls between local lines and allows all users to share a certain number of external lines.
WinPDM	Portable Device Manager: An application, running on a PC, for management of portable devices, charging racks, etc. .
Device Manager	PDM system version running on a CPDM3, for management of handsets, charging racks etc.
CPDM3	Centralized Portable Device Manager: A system version with more features than the WinPDM. It runs on a ELISE3 hardware and is manageable from a computer with network communication.

1.3 Functionality matrix

The following matrix shows which functionalities that can be used by the different handset and require settings via WinPDM/CPDM3.

Functions	DT413	DT423	DT433
Company phonebook	x	x	x
Central phonebook	x	x	x
Personalized menus	x	x	x
Audio adjustment (mic gain etc.)	x	x	x
Customizable ring signals	x	x	x
Messaging (text size etc.)	x	x	x
180 degrees rotation of message and call information	x	x	x
Voice Mail	x	x	x
Push Button Alarm	-	x	x
Man-down and No-movement alarm	-	x	x
Automatic Call after Alarm	-	x	x
Acoustic Location Signal (ALS)	-	x	x
Poll Location[1]	x	x	x
Location, Base Station	x	x	x
Base station encryption	x	x	x
Push To Talk (PTT)[2]	x	x	x
Upload Language	x	x	x
Clear lists in charger	x	x	x
Services	x	x	x
Emergency call number	x	x	x
Own/User headset profile	x	x	x
PBX date format for absence handling	x	x	x
DTMF settings for On-hook/PTT	x	x	x
Own line settings	x	x	x

1.Base Station Location must be enabled to use this feature.
2.This function requires 3rd party conference unit

2 Getting Started with Configuration of the Handset

It is possible to configure the handset by inserting it into a Desk PDM Charger or Rack PDM Charger The charger is connected via USB to the WinPDM, or via Ethernet to the CPDM3.

In the case of IP-DECT, it is possible to configure the handset over the air.

This chapter describes how to configure handsets in three different system setups:

- with WinPDM
- with Device Manager via chargers
- with Device Manager over-the air

2.1 WinPDM

The Windows Version is run on a PC. The handset is configured via WinPDM as follows:

1 Connect a Desk PDM Charger or a Rack PDM Charger via USB to the computer running WinPDM.

2 Start WinPDM.

3 Place the handset in this charger which shall be connected to WinPDM. The handset can either be turned off or turned on when placing it in the charger. A handset that is turned off will start up automatically and the battery charging symbol will be displayed.

For instructions on how to use WinPDM, see its *Installation and Operation Manual*.

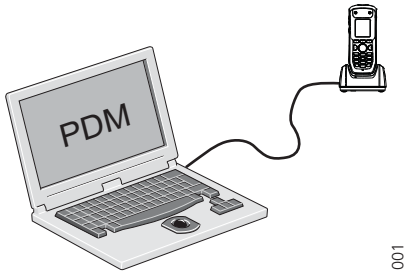

Figure 1. Configuration of handsets via WinPDM.

2.2 Device Manager in CPDM3

The CPDM3 runs on an ELISE3 module.

For instructions on how to use the CPDM3, see the corresponding *Installation and Operation Manual*.

2.2.1 Via Chargers

1 Connect a Desk PDM Charger or a Rack PDM Charger via the Ethernet port to the network.

2 The charger is by default configured to connect to the network using DHCP. If DHCP is not used in the network, connect each charger via USB to a WinPDM and configure a static IP address.

3 Start the CPDM3.

4 Place the handset in a charger that is connected to the CPDM3. The handset can either be turned off or turned on when placing it in the charger. A handset that is turned off will start up automatically and the battery charging symbol will be displayed

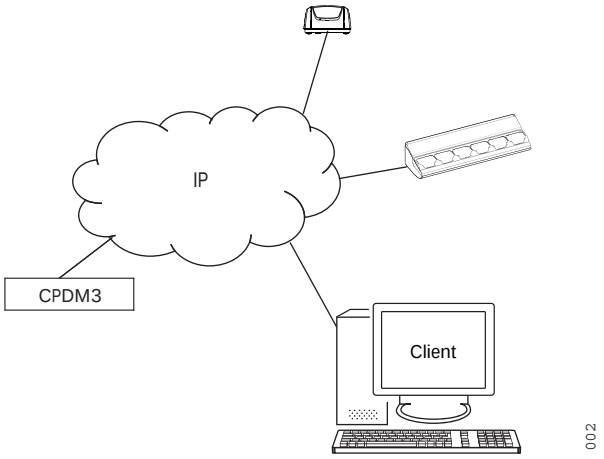

Figure 2. Configuration of handsets via CPDM3 and chargers.

2.2.2 Over-the-air via IP-DECT

There is no external equipment needed besides CPDM3 and IP-DECT. Please proceed with 3 *Installation of Handsets* on page 4.

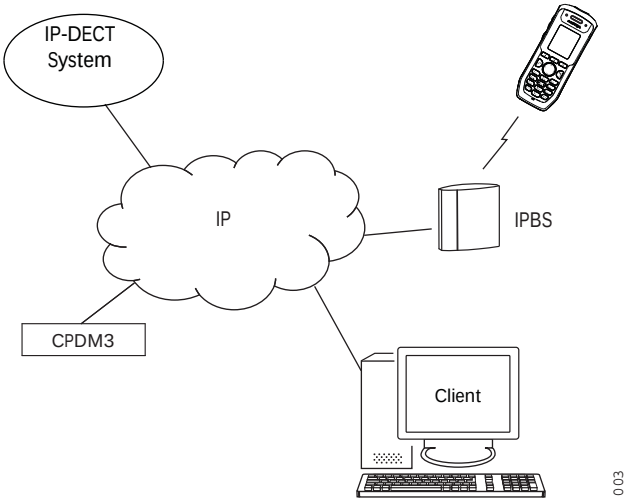

Figure 3. Configuration of handsets via CPDM3 and over-the-air.

3 Installation of Handsets

This section describes the recommended procedure for installing and configuring handsets. There are several ways to install a handset but the procedures described here guarantees simple maintenance of the system.

It is recommended to use the CPDM3 to install and maintain handsets in a large system. The reason is that it enables to install, upgrade and configure a large amount of handsets simultaneously. Another benefit is that the collection of the handsets from the user is not needed. They can be maintained while placed in network connected Desk PDM Charger on the users' desks. Network connected Rack PDM Chargers can also be used, or over the air in the case of IP-DECT.

The WinPDM enables administration of handsets inserted in a Desk PDM Charger or Rack PDM Charger connected via USB to the administrator's computer.

For WinPDM, see its *Installation and Operation Manual*.

3.1 Preparing WinPDM or Device Manager for handling of Handsets

If the parameter definition file (.def) for the handset is not present in the WinPDM or CPDM3, it can be added by following the procedure below. The parameter definition file and software file (.bin) are delivered as a package file with the extension .pkg. Note that template files (.tpl) may also be included in a package file.

1 Open the WinPDM or the Device manager in CPDM3.

2 In the File menu, select .File Management> Add Parameter definition

3 Select the package and click "OK".

The package will imported and the files will be created.

File extensions are further explained in an appendix in the corresponding *Installation and Operation Manual for* WinPDM or CPDM3.

3.2 Adding a Charger in CPDM3

A charger must be added in CPDM3 before handsets can be configured.

Follow the steps below to add a charger in CPDM3:

1 Open CPDM3 and Device Manager.

2 Connect a desktop or rack charger to the network. The Found new hardware wizard is opened in CPDM3.

3 In the wizard, select "Store in database" and click OK.

4 The charger is now added in CPDM3. Since it is stored in the database, the charger is visible in CPDM3 even when disconnected from the network.

5 Open the Numbers tab and double-click the charger.

6 Configure the charger.

3.3 Configuring Handsets in DECT Systems (Integrated DECT)

In a DECT system, each handset corresponds to a DECT extension in the PBX. The handsets and PBX communicates using DECT base stations connected to the PBX.

Configuring handsets in a DECT system comprises the following steps:

- Creating DECT extensions (including authorization codes and the IPEI codes of the handsets) in the PBX.
- Subscribing the handsets to the PBX, using the authorization codes and, if applicable, the PARK code.
- Adding the handsets in CPDM3 using one of the following procedures:
  - New handset, new number
  - New handset, existing number
  - Existing handset, new number
  - Several new handsets, new numbers
- Configuring the handsets, manually or using a template.

3.3.1 New Handset, New Number

Adding a new handset with a new number in a DECT system comprises the following steps:

1 Create a DECT extension (including an authorization code and the IPEI code of the handset) in the PBX.

2 From the handset, subscribe the handset to the PBX using the authorization code of the created DECT extension.

After subscription the handset is ready for making and receiving calls. To be able to manage handset settings and firmware using CPDM3, the handset must be added in CPDM3.

3 Open CPDM3 and Device Manager.

4 Place the handset in a desktop or rack charger connected to CPDM3 over the LAN. The *Found new hardware* wizard is opened. (For information on how to connect chargers to CPDM3, see 4)

5 In the wizard, select "Do nothing" and click OK.

6 Open the "Devices" tab and verify that the handset is online.

7 Right-click the handset and select "Assign number". (Assigning a number to a handset is a one-step procedure for both creating a number in CPDM3 and associating a handset to this number).

8 In the "Assign number to device" dialog box, enter the directory number of the DECT extension created in step 1. (Even though CPDM3 is not a part of the communication between the handset and the PBX, it is highly recommended that the handset number in CPDM3 corresponds to the directory number of the DECT extension created for the handset. If not, the handset will be displayed using different numbers in CPDM3 and the PBX.)

9 Configure the handset. For information on how to configure handsets, see "Handset Configuration" on page 17.

3.3.2 New Handset, Existing Number

When adding a new handset to an existing number in a DECT system, an existing DECT extension in the PBX and handset number in CPDM3 is used.

Adding a new handset using an existing number comprises the following steps:

1 In the PBX, change the IPEI code for the existing DECT extension (or re-initiate the DECT extension) so that it corresponds to the IPEI code of new handset.

2 From the handset, subscribe the handset to the PBX using the authorization code of the created DECT extension.

3 Open CPDM3 and Device Manager.

4 Place the handset in a desktop or rack charger connected to CPDM3 over the LAN. The *Found new hardware* wizard is opened.

5 In the wizard, select "Do nothing" and click OK.

6 Open the "Device" tab and verify that the handset is online.

7 Open the "Numbers" tab

8 In the list, select the number to associate with the handset.

9 On the Number menu, select "Associate with device...".

10 Select the handset and click OK.

11 Configure the handset. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.3.3 Existing Handset, New Number

When adding a new number to an existing handset in a DECT system, a new DECT extension in the PBX and handset number in CPDM3 is created.

Adding a new number to an existing handset comprises the following steps:

1 Create a DECT extension (including an authorization code and the IPEI code of the handset) in the PBX.

2 Open CPDM3 and Device Manager.

3 Place the handset in a desktop or rack charger connected to CPDM3 over the LAN. The *Found new hardware* wizard is opened.

4 In the wizard, select "Do nothing" and click OK.

5 Open the "Device" tab and verify that the handset is online.

6 Open the "Numbers" tab.

7 Create a new number in CPDM3 (it is highly recommended to use the same number as the created DECT extension). For more information, see “Create New Numbers” on page 55.

8 In the list of available numbers, select the created number.

9 On the Number menu, select "Associate with device...".

10 Select the handset and click OK.

11 Configure the handset. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.3.4 Several New Handsets, New Numbers

When adding several new handsets with new numbers in a DECT system, the procedure in CPDM3 can be simplyfied by adding a range of numbers and then associating the numbers with a selection of handsets.

Adding several new handsets with new number comprises the following steps:

1 Create a range of DECT extensions (including authorization codes and the IPEI codes of the handsets) in the PBX.

2 From the handsets, subscribe the handsets to the PBX.

3 Open CPDM3 and Device Manager.

4 Place the handsets in a desktop or rack charger connected to CPDM3 over the LAN. The *Found new hardware* wizard is opened.

5 In the wizard, select "Do nothing" and click OK.

6 Open the "Device" tab and verify that the handset is online.

7 Create a set of numbers according to *"Create Numbers"* in *Installation and Operation Manual, CPDM3*.

8 Associate the numbers with the handsets according to *" Associate a Number"* in *Installation and Operation Manual, CPDM3*

9 Configure the handsets. For information on how to configure handsets, see “Telephone Configuration” on page 18.

3.4 Configuring Handsets in IP DECT (SIP) Systems

In an IP DECT (SIP) system, each handset corresponds to an IP extension in the PBX. The handsets and PBX communicates using IP DECT base stations connected to the PBX oven the LAN.

Configuring handsets in an IP DECT (SIP) system comprises the following steps:

- Creating IP extensions in the PBX.
- Creating users (including authorization codes and the IPEI codes of the handsets) using the user interface of the IP DECT base station.
- Subscribing the handsets to the PBX, using the authorization and PARK codes.
- Adding the handsets in CPDM3 using one of the following procedures:
  - New handset, new number
  - New handset, existing number
  - Existing handset, new number
  - Several new handsets, new numbers
- Configuring the handsets, manually or using a template.

3.4.1 New Handset, New Number

When adding a new handset with a new number in an IP DECT (SIP) system, an IP extension in the PBX, a user in the IP DECT user interface, and a handset number in CPDM3 is created.

Adding a new handset with a new number in an IP DECT (SIP) system comprises the following steps:

1 Create an IP extension in the PBX.

2 In the IP DECT base station user interface, add a new user including a number that equals the directory number of the created IP extension, an IPEI code for the user’s handset, and an authorization code. For information on how to add users in IP DECT base stations, see *IP DECT Base Station, Installation and Operational Manual*.

3 From the handset, subscribe the handset to the IP DECT base station using the authorization code created in step 2.

After subscription the handset is ready for making and receiving calls. To be able to manage handset settings and firmware using CPDM3, the handset must be added in CPDM3.

4 Open CPDM3 and Device Manager.

5 Place the handset in a desktop or rack charger connected to CPDM3 over the LAN.The *Found new hardware* wizard is opened.

6 In the wizard, select "Do nothing" and click OK.

7 Open the "Device" tab and verify that the handset is online.

8 Right-click the handset and select "Assign number". (Assigning a number to a handset is a one-step procedure for both creating a number in CPDM3 and associating a handset to this number).

9 In the "Assign number to device" dialog box, enter the directory number of the DECT extension created in step 1.The function " Easy registration" as described in chapter 3.4.5 use this number and it is important that it corresponds to a valid free number in MX-ONE.

10 Configure the handset. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.4.2 New Handset, Existing Number

When adding a new handset to an existing number in an IP DECT (SIP) system, an existing IP DECT extension in the PBX and handset number in CPDM3 is used.

Adding a new handset using an existing number comprises the following steps:

1 In the IP DECT base station user interface, change the IPEI code for the number so that it corresponds to the IPEI code of the new handset.

2 From the handset, subscribe the handset to the IP DECT base station using the user’s authorization code (defined in the IP DECT base station).

3 Open CPDM3 and Device Manager.

4 Place the handset in a desktop or rack charger connected to CPDM3 over the LAN. The *Found new hardware* wizard is opened.

5 In the wizard, select "Do nothing" and click OK.

6 Open the "Device" tab and verify that the handset is online.

7 Open the "Numbers" tab

8 In the list, select the number to associate with the handset.

9 On the Number menu, select "Associate with device...".

10 Select the handset and click OK.

11 Configure the handset. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.4.3 Existing Handset, New Number

When adding a new number to an existing handset in an IP DECT (SIP) system, a new IP DECT extension in the PBX and handset number in CPDM3 is created.

Adding a new number to an existing handset comprises the following steps:

1 Create an IP extension in the PBX.

2 In the IP DECT base station user interface, add a new user including a number that equals the directory number of the created IP extension, an IPEI code for the user’s handset, and an authorization code. For information on how to add users in IP DECT base stations, see *IP DECT Base Station, Installation and Operational Manual*.

3 From the handset, subscribe the handset to the IP DECT base station using the authorization code created in step 2.

4 Open CPDM3 and Device Manager.

5 Place the handset in a desktop or rack charger connected to CPDM3. The *Found new hardware* wizard is opened.

6 In the wizard, select "Do nothing" and click OK.

7 Create a new number in CPDM3 (it is highly recommended to use the same number as the created IP extension). For more information, see “Create New Numbers” on page 55.

8 In the list of available numbers, select the created number.

9 On the Number menu, select "Associate with device...".

10 Select the handset and click OK.

11 Configure the handset. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.4.4 Several New Handsets, New Numbers

When adding several new handsets with new numbers in an IP DECT (SIP) system, the procedure in CPDM3 can be simplified by adding a range of numbers and then associating the numbers with a list of handsets.

Adding several new handsets with new number comprises the following steps:

1 Create IP extensions in the PBX.

2 In the IP DECT base station user interface, add new users including numbers that equals the directory numbers of the created IP extensions, IPEI codes for the users’ handsets, and authorization codes. For information on how to add users in IP DECT base stations, see *IP DECT Base Station, Installation and Operational Manual*.

3 From the handsets, subscribe the handsets to the IP DECT base station using the authorization codes created in step 2.

4 Open CPDM3 and Device Manager.

5 Place the handsets in a desktop or rack charger connected to CPDM3. The *Found new hardware* wizard is opened.

6 In the wizard, select "Do nothing" and click OK.

7 In CPDM3, create a set of numbers according to *"Create Numbers"* in *Installation and Operation Manual, CPDM3*.

8 Associate the numbers with the handsets according to *" Associate a Number"* in *Installation and Operation Manual, CPDM3*.

9 Configure the handsets. For information on how to configure handsets, see “Handset Configuration” on page 17.

3.4.5 Handset Installation in IP-DECT System using Easy Registration

A handset can subscribe to an IP-DECT system automatically if the following are fulfilled:

- The IP-DECT system is configured for Easy Registration, see the Installation and Operational Manual for your IP-DECT system.
- The handset extension number and IPEI are registered in the IP-DECT system, see the Installation and Operational Manual for your IP-DECT system.
- The handset is not subscribed to any systems.
- The handset software is version 3.5.X or higher.

Subscribe

Select the package and click “OK”.

1 If needed, switch off the handset by pressing the On-Hook key.

2 Switch on the handset by pressing On-hook key.

3 Select language to be used by or press “Cancel". If Cancel is pressed, the default language (English) will be used.

4 The handset starts to search for IP-DECT systems and will subscribe to the system when it is found.

During the subscription procedure, the handset,User ID will automatically be set to the same as the extension number. The User ID is used to identify the handset when it is connected to WinPDM/Device Manager and will be visible in the Number column.

Tip: The User ID can be viewed in the handset by navigating to the menu:
Admin menu > Device info > User ID.

4 Maintenance

4.1 Definitions

In the replacement descriptions, the handsets are defined as:

- "old handset" is the handset to be replaced, possibly damaged but still working
- "new handset" is the replacement handset that will get the settings used in the old handset

4.2 Upgrade handset software

It is possible to upgrade or reinstall the software on a handset. When upgrading the software of the handset, any data (for example, messages) may be deleted.

1 Open the WinPDM.

2 In the Devices tab, right-click the handset to be upgraded.

3 Select "Upgrade software...".

4 In the Available software drop-down list, select the desired software file (.bin).

If needed, import the software file to be used by clicking "Import". Locate the software file (.bin or .pkg) and click "Open".

5 Click "OK".

4.2.1 Download times during upgrade of handset software

The software will now be downloaded to the handset. The following table shows the approximately download times for handset when done over-the-air (OTA) in an IP-DECT system, or via charger in a DECT system.

Table 1. Download times

OTA via IPBS	DC4 Charger connected to Device Manager via Ethernet	DC4 Charger connected to PDM via USB.
approx. 25 min.	approx. 9 min. 20 sec.	approx. 9 min. 30 sec.

The software download capacity depends on call traffic stated below. The table below is not applicable for DC4 charger connected to WinPDM since IPBS or CPDM3 is not needed.

6 Download times during calls

IPBS 0-4 simultaneous downloads depending on call traffic as follows:

No. of calls	No. of possible simultaneous downloads
0	4
1	3
2	2
3	1
4 >	0

Device Manager	Max. 10 simultaneous downloads (max. 20 when using an external web server).

4.3 Perform a Factory reset

When a factory reset is done on a handset, all configuration settings will be restored to default values, PBX subscriptions will be removed and all data are removed. This includes contacts, messages etc. The software will be left intact.

Factory Reset using WinPDM

1 In WinPDM, click the Device tab and mark the handset to be factory reset. Note that the handset must be online.

2 In the Device menu, select "Factory reset". Alternatively, right-click the handset and select "Factory reset".

3 A Reset devices dialog appears, click "Yes". The handset will be restarted.

Factory Reset using Handset

It is possible to factory reset a handset from its Admin menu.

1 To activate the Admin Menu, enter the Call time screen and press > * < < * <.

2 Select "Factory Reset".

3 A Reset portable? dialogue appears, press "Yes". The handset will be restarted.

4.4 Replacement procedure choice guide

Depending on situation, two different replacement procedures can be chosen; replacement via WinPDM/CPDM3 and Easy Replacement. Use the following list as a guide to choose which procedure to use.

- If a handset needs to be replaced due to for example a broken display, see corresponding handset's User Manual.
- If the electrical connection is damaged, it might not be possible to follow the Easy Replacement procedure. Depending on fault, it might work to do a replacement via WinPDM/CPDM3, see 4.5 *Replacement of handset with the Device Manager* on page 12 or 4.6 *Replacement of the handset with WinPDM* on page 14.
- If two handsets and their settings shall be switched between two users, follow 4.5 *Replacement of handset with the Device Manager* on page 12 or 4.6 *Replacement of the handset with WinPDM* on page 14.

4.5 Replacement of handset with the Device Manager

Both the old handset and the new handset must be of the same device type (DT413, DT423 or DT433). The same extension number is assigned to the new handset.

Make sure that the old handset is saved in the CPDM3. Start the Device Manager in the CPDM3 and navigate to the "Numbers" tab. There shall be a tick in the "Saved" column for the old handset.

If the handset is not saved, insert it into a desktop charger or charging rack connected to CPDM3 and perform a save, see the CPDM3's *Installation and Operation Manual*.

If it would be impossible to save the old handset settings, stop this replacement procedure. Instead unsubscribe the old handset from the PBX, register the new handset and follow the instructions for installing a handset. When the handset is saved, unsubscribe the old handset from the PBX. The following steps are described in two different scenarios, check which one suits the best before proceeding.

4.5.1 Data included in a replacement transfer

The following data is replaced during a replacement with CPDM3:

- User parameters (including User ID)
- Contacts (entered by the user)

Note that the following data is not replaced:

- DECT registration
- Call list
- Messages
- Bluetooth pairing list
- Company phonebook
- Downloaded Language

4.5.2 Handset Replacement with Device Manager in IP-DECT System

Note: The handset to be installed must not have any previous valid registrations. If it has a valid registration, unsubscribe the handset.

1 Unsubscribe the old handset. If the unsubscribtion cannot be performed in the handset, unsubscribe the handset via the IP-DECT interface. See the corresponding IP-DECT documentation.

2 Subscribe the new handset with the same extension number as the old handset. The subscription procedure is described in handset's User Manual. During the subscription procedure, the handset's User ID will automatically be set to be the same as the extension number.

Tip: The User ID can be viewed in the handset by navigating to the menu: Admin menu > Device info > User ID.

3 Insert the handset into a desktop charger or charging rack connected to CPDM3 (not needed if an over the air connection is used). Navigate to the Numbers tab in CPDM3 Device Manager.

The new handset now has the same User ID as the old handset. It will automatically be synchronized and data and parameter settings from the old handset will be transferred to the new handset.

The synchronization will take a while if the Contacts in the original handset contains a large number of contacts.

4.5.3 Handset Replacement with Device Manager in Integrated Dect System

1 Make a note of the IPDI of the new handset. It is found by pressing *#06# on the handset.

2 Insert the new handset into a desktop charger or charging rack connected to the IMS2 and navigate to the Numbers tab in the Device Manager in CPDM3.

3 In the list, right-click the old handset and select "Associate with device...". Select the device with an IPDI that matches the new handset from the list that opens.

The new handset is automatically synchronized and all data and parameter settings will be transferred to the new handset.

The synchronization will take a while if the Contacts in the original handset contains a large number of contacts.

4 Subscribe the new handset. The subscription procedure is described in the handset's User Manual. During the subscription procedure, the handset's User ID will automatically be set to be the same as the extension number.

4.6 Replacement of the handset with WinPDM

To see which data that is replaced during this process, see 4.5.1 *Data included in a replacement transfer* on page 13.

Both the old handset and the new handset must be of the same device type. The same extension number is assigned to the new handset.

The new handset should not be subscribed towards the PBX yet.

1 If the new handset has been previously used, perform a factory reset, see 4.3 *Perform a Factory reset* on page 12.

2 Make sure that the handset is saved in the WinPDM. In the Numbers tab, a saved handset has the symbol ✓ in the Saved column. If not, right-click the handset and select "Save" in order to transfer the settings to the new handset later on.

Note: If it is impossible to save the old handset settings, stop this replacement procedure. Instead register the new handset and follow the instructions for installing a handset.

The following steps are described in two different scenarios, check which one suits the best before proceeding.

Handset Replacement with WinPDM in IP-DECT System

1 **Note:** The handset to be installed must not have any previous valid registrations. If it has a valid registration, unsubscribe the handset. Unsubscribe the old handset. If the unsubscribtion cannot be performed in the handset, unsubscribe the handset via the IP-DECT interface. See the corresponding IP-DECT documentation.

2 Subscribe the new handset with the same extension number as the old handset. The subscription procedure is described in the handset's User Manual.

During the subscription procedure, the handset's User ID will automatically be set to the same as the extension number. The User ID is used to identify the handset when it is connected to WinPDM and will be visible in the Number column.

Tip: The User ID can be viewed by navigating to the menu:
Admin menu > Device info > User ID.

3 Insert the new handset into a desktop charger or charging rack connected to the WinPDM.

4 A dialog window appears, asking the user to decide whether to use the Number settings in WinPDM or the Number settings in the device. Select "WinPDM".

The handset will automatically be synchronized and all data and parameter settings will be transferred to the new handset. The synchronization will take a while if the Contacts in the original handset contains a large number of contacts.

4.6.1 Handset Replacement with WinPDM in Integrated DECT System

1 Insert the new handset into a desktop charger or charging rack connected to the WinPDM.

2 A dialog window will be displayed. Select the option "Associate with number". Follow the instructions and select the number of the old handset, see WinPDM Installation and Operation manual.

The handset will automatically be synchronized and all data and parameter settings will be transferred to the new handset. The synchronization will take a while if the Contacts in the original handset contains a large number of contacts.

3 Subscribe the new handset.

4.7 DECT Frequency Band Configuration

NOTE: The frequency band configuration is only needed if other frequencies than EU,US or China shall be used. Additionally, if the handset has been returned from repair, the applicable frequency band might be set again.

In order to change the operating frequency band, the following preconditions must be fulfilled:

- The frequency is set to Not initiated. This can be checked by entering the Admin menu, see 6 *Administration* on page 38, follow the path:
  Admin menu > Device info > Hardware.
  Scroll down to “Frequency band”.
- The handset must not have a DECT registration. If it already has, perform a Factory reset, see 4.3 *Perform a Factory reset* on page 12.

1 Enter the Admin Menu, see 6 *Administration* on page 38.

2 Select "Frequency band" and select the desired band.

- EU US China (default)
- LA (Latin America)
- Brazil
- 1900 - 1920 MHz

3 Restart the handset.

4 Register the handset.

5 The frequency band option will no longer be available.

NOTE: The selection is persistent and will stand a factory reset.

4.7.1 Multiple Frequency Support

The handset can be used in a system that changes frequency by selecting ,"Multifrequency," as frequency band in the handset. See *4.7 DECT Frequency Band*

Configuration. This setting is applicable for handsets used in different regions of the world. For example for users working on a ship that visits different countries.

When the frequency band is set to "Multifrequency", the handset will adopt to the applicable frequency band (EU, US or Brazil) used in the specific region after it has been restarted.

NOTE: The handset will adopt to the frequency band configured in the DECT system.

The recommended procedure when changing frequency band is as follows:

1 The site administrator sends out broadcast message to all handsets informing that the handsets need to be restarted at a specific time.

2 The site administrator enters IP-DECT master and change setting for the frequency and carriers just before the specific time.

3 All handset users restart their handsets.

After the restart the handsets have changed to the applicable frequency band (EU, US or Brazil).

5 Handset Configuration

Note: This chapter describes settings in parameter definition files (.def). These files are regularly updated and settings may change slightly. For example "On" to "Enable" or a parameter can be moved to another directory.

5.1 Configure a Handset with a Template

Note:Ask your supplier for example templates valid for your telephone and your PBX

A template contains one or more parameter settings. By using a template, the same configuration can easily be applied to many handsets simultaneously. Templates are also an efficient way to give good control over which changes that are applied to each handset.

Templates enables configuration of all aspects of a handset from sound volume to keypad short cuts.

5.1.1 Create a template

1 Open the WinPDM or the Device Manager in the CPDM3.

2 In the Templates tab, select Template > New. The Create Template window is opened.

3 Select the device and parameter version that matches the software version installed on the handset. Give the template a descriptive name.

The parameters that are not part of the template will be left unchanged on the handset.

The parameter version of an installed handset is visible under the Numbers tab or the Devices tab.

4 Select the checkbox of each parameter that you want to be part of this template and enter the proper value.

5 Click "OK" to save your template.

5.1.2 Apply a template

1 Open the WinPDM or the Device Manager in the CPDM3

2 In the Numbers tab, right-click the handsets you want to apply the template to.

3 Select "Run template...".

Only templates with a parameters version matching the selected handsets will be shown. Select the template you want to apply and click "OK".

The template is applied. The number of parameters in the template will affect the time it takes to apply the template to the selected handsets.

When looking at a handset under the Numbers tab, the column Last run template will show the name of the most recently applied template.

5.1.3 Save a Handset Configuration as a Template

It is possible to save all settings of a handset as template. Please note that this does not include contacts and other personal data. The template will only contain configuration data.

This template can be used as a backup if your want to restore the configuration of the handset at a later stage or as a template that can be applied to a number of handsets.

1 Some parameters are user specific. If it is decided to apply this type of template to several handsets, it is recommended to exclude the following parameters:

- Owner ID - A text string specified in idle mode. The parameter is located directly under "Settings".
- Phone lock PIN code - The security code used to unlock the keypad. The parameter is located under Settings > Locks.

2 Open WinPDM or the Device Manager in the CPDM3.

3 In the Numbers tab, right-click the handset you want to save as a template.

4 Select "Use as a template...". Enter a descriptive name for the template.

5 The Edit template window is opened. By default, all parameters are selected and are saved when clicking on "OK".

If one or more parameters should be excluded, remove them by clearing the checkbox next to the parameter.

6 Click "OK".

5.1.4 Synchronizing a handset with WinPDM/Device Manager

After installing and saving a handset, it will be synchronized each time it is connected to the WinPDM. The synchronization transfers parameter changes between the handset and the WinPDM and vice versa as follows:

- If a parameter has been changed in the handset, it will be transferred to the WinPDM/Device Manager.
- If a parameter has been changed in the WinPDM/Device Manager while the handset was disconnected, it will be transferred to the handset.

If the same parameter has been changed in both the WinPDM/Device Manager and the handset, the value in WinPDM/Device Manager will be transferred to the handset.

5.2 Voice Mail

In the handset it is needed to assign the number of the Voice Mail service. The parameter can be set specifically for each PBX subscription on the handset and is

accessed from Systems > System x > PBX Settings > Numbers. "System x" is replaced with the subscription (System A - System H) that is configured.

5.2.1 Wildcard Characters in Voice Mail Number

When programming voice mail dial strings in WinPDM/Device Manager it is possible to use a wildcard character, N, to represent the phone’s extension number.

For example, a PBX uses voicemail numbers that are a combination of a base voice mail number and the phone’s extension number. If the base voice mail number is 2222 and the extension number is 4455, the voicemail number is 22224455. Using the N wildcard character this can be written as: 2222N

5.3 Central Phonebook

If the system is equipped with a messaging server with a phonebook service, the Central Phonebook on that server can be accessed from the handset. The number to be used is set to default 999999. It can be changed by editing parameters in a Number or a template.

If the system is not equipped with a Central Phonebook, this menu option can be removed from the handset by entering an empty value for the corresponding parameter.

The parameter can be set specifically for each PBX subscription on the handset and is accessed from Systems > System x > PBX Settings > Numbers. "System x" is replaced with the subscription (System A - System H) that is configured.

5.4 Company Phonebook

It is possible to create a phonebook that is administered centrally and uploaded to the handset from WinPDM/CPDM3. If this feature is used, entries from Contacts and Company Phonebook are merged. The Company Phonebook entries are locked and cannot be edited in the handset.

1 Create a Company phonebook file.

2 Import the Company phonebook file to WinPDM/CPDM3, see the corresponding Installation and Operation Manual.

3 Upload the company phonebook file to the handset(s) via WinPDM/CPDM3, see the corresponding Installation and Operation Manual.

5.4.1 Create a Company Phonebook File

The phonebook file (.cpb) is created from an Excel file using a script to extract the information and create to the phonebook file (.cpb). The Excel file is provided by your supplier.

The format of the rows in the phonebook file is:
<Name><tab><phone number>
followed by additional rows for each entry.

The handset supports a maximum length of 24 characters in each field, additional characters are truncated when the phonebook file is created. The following characters are accepted in the handset number field in the phonebook file, but are ignored when the phonebook file is created: "(", ")", "-" and " "(space).

5.4.2 Upload a Company Phonebook file

In WinPDM/CPDM3, go to the devices tab and select device(s). In the Device menu, select "Upload phonebook".

5.4.3 Delete Company Phonebook Entries

Company phonebook entries in a handset can be deleted by downloading an empty company phonebook file to the handset.

5.5 Import Contacts

It is possible to create a local phonebook (that is Contacts) that is administered centrally and uploaded to the handset from WinPDM/CPDM3.

5.5.1 Create Local Phonebook File

The local phonebook file is created by an Excel file provided by your supplier.

5.5.2 Upload a Local Phonebook File

IMPORTANT: When uploading a local phonebook file, local phonebook entries (if any) in the handset will be replaced by the entries in the file.

1 In WinPDM or the Device Manager in the CPDM3, go to the Numbers tab and select handset(s).

2 In the Number menu, select Import contacts > From file.

3 Select the file to be imported and click "Open".

5.6 Call Services

Call services is a configurable menu in the handset. The purpose of the Call services menu is to provide a user friendly access to system dependent functionality such as absence handling and call diversion.

The menu is described in the handset's User Manual.

Besides the default Call services functions, it is possible to define 10 extra system specific call services by codes. The codes can be programmed with digits 0-9, #, *, P – pause, H – hook (auto disconnection), U- the handset prompts for user input with the possibility to enter numerical characters (procedure call).

Using the WinPDM and the "Edit template" feature, the parameter can be found at Systems > Common > Call Services > General Service X

Ask your supplier for a template example that will configure the call services menu for the PBX.

5.6.1 Activate/Deactivate Call Services when Changing Profile

It is possible to activate/deactivate a Call service when changing profile in the handset. This feature can for example be used to send feature access codes (for example *21*) to the system when the handset changing profile.

1 If needed, configure the Call services to be used for the profiles, respectively. See *5.6 Call Services*.

2 Select User Profiles > User Profile X (where X represents 1 - 4).

3 Select Presence and diversion > Call services.

4 In the When activated and When deactivated drop lists, select the Call services to be used when the profile is activated and deactivated.

TIP: It is possible to activate a profile when placing a handset in a charger, see 5.15 *Actions when Handset Placed in Charger* on page 26.

5.7 Call Diversion

It is possible to configure user friendly call diversion menus in the handset using WinPDM/CPDM3. These menus can then be selected in the handset by selecting Calls > Call services > Divert calls.

Tip: Beside the default call diversion menus, it is possible to define 10 extra system specific services codes, see *5.6 Call Services*.

1 Select Systems > System X (where X represents A - H).

2 Select PBX Settings > Diversion.

3 Select "Internal" or "External", ; enter the following:

- Prefix - the system specific prefix code to be used (if required by the PBX used)
- Suffix - the system specific code required to activate the diversion (for example "*21*")
- Cancel - the system specific code required to deactivate the diversion (for example "#23#").

The user can now enter the diversion number in the handset.

Tip: It is also possible to activate a call diversion when a profile is activated. In this case, the diversion number can be entered when configuring the profile. See *5.7.1 Call Diversion in Profiles*.

5.7.1 Call Diversion in Profiles

It is possible to configure a handset to diverts calls when a certain profile is activated.

Note: The PBX settings for call diversion must also be configured, see *5.7 Call Diversion*.

1 Select User Profiles > User Profile X > Presence and diversion.

2 Select which calls to be diverted (that is all call, internal calls etc.).

3 In the Divert calls to field, enter the phone number where the calls shall be diverted to when the profile is activated.

4 Select "User Profile X".

5 In the Name field, enter an appropriate name of the profile.

Additional settings can be added for a profile, such as soft keys, sound and alert etc. See 5.34.1 *User Profiles* on page 36.

5.8 Absence Handling

It is possible to configure user friendly absence menus in the handset using WinPDM/ CPDM3. These menus can then be selected in the handset by selecting Calls > Call services > Absence. This menu is used to set the reason why a call cannot be answered, for example when you are in a meeting. The caller will be notified about the absence reason when he/she calling.

Beside the default absence menus, it is possible to define 10 extra system specific services codes, see *5.6 Call Services*.

1 Select Systems > System X (where X represents A - H).

2 Select PBX Settings > Absence.

3 Select "Common codes", enter the following:

- Activation prefix - the system specific activation prefix code required to activate the absence (for example *23*)
- Activation suffix - the system specific activation suffix code required to activate the absence (for example #)
- Deactivation - the system specific code required to deactivate the absence (for example "#23#").
- PBX date format for user input - the PBX supported date format to be sent to the PBX when activating an absence reason containing a date (for example "Vacation"). The date in the handset is always entered in MMDD format. If the parameter is set to DDMM, the handset will automatically convert to correct date format.

4 Select "Lunch", "Meeting", "Trip", "Vacation", "Out" and/or "General absence X"; enter the following:

- Activation code - the system specific code for an absence reason, for example "0*".
- Name - enter name of absence reason (only for General absence). The name will be visible in handset.
- User input - specifies if time or date is required for the absence reason (only for General absence).

5.9 In Call Menu

In Call menu is a configurable menu in the handset. The purpose of the In Call menu is to provide a user friendly access to system dependent functionality during a call such as:

- Start a new call during a conversation
- Switch between calls
- End a call
- Transfer a call
- Transfer to a new call[1]
- Make a conference call
- Activate call back
- Sending call waiting
- Open Contacts (that is, Local phonebook and Company phonebook)
- Open Messaging menu [2]
- Send DTMF
- Viewing DECT information[3]
- Turning microphone on/off[3]

The menu is described in the handset's User Manual.

Note: It is also possible to configure own In call functions, see 5.9.1 *Configure Own In Call Functions* on page 23.

Using the WinPDM and the "Edit template" feature, the parameters can be found at Systems > System X > PBX Settings > In call functionality

Tip: Ask your supplier for example templates that will configure the in call menu for your PBX.

5.9.1 Configure Own In Call Functions

Besides the default In call functions, it is possible to define 10 extra system specific call services by codes. The codes can be programmed with digits 0-9, #, *, P – pause, H – hook (auto disconnection),

1 Select Systems > System X > PBX Settings > In call functionality > General purpose X

2 In the Name field, enter the name to be displayed in the In call menu.

3 In the Data field, enter the applicable code to be used for the function.

4 Click "OK" to save the settings.

Tip: Your supplier may have a template example that will configure the In call functions menu for the PBX.

1.This option will be visible in the handset when the parameters "New call" and "Transfer" are set.
2.This option is always visible and cannot be disabled in handset.
3.This option will be visible in the handset when the Admin Menu is activated. See 6 *Administration* on page 38.

5.10 Own Line Settings

Use the own line settings when it is desired to use the same phonebook in different systems and in different countries.

The own line settings enables:

- Calling numbers stored with a "+" sign for the international access code. The same phonebook can be used in different countries.
- Recognizing incoming internal or external calls as numbers stored on international format in the phonebook. The same phonebook can be used in different systems.

In order for this feature to work, numbers must be stored in the phonebook in international format with a "+" sign for the international access code. Also, the Own Line parameters must be configured via WinPDM/CPDM3.

5.11 Configure DTMF

PTT [1]for MX-ONE require that the handset sends DTMF tones when pressing/ releasing the PTT button and/or when pressing the On-hook key to end a call.

5.11.1 Send DTMF Tone when Pressing On-Hook key

1 Select Settings > DTMF.

2 In the On-hook DTMF tone drop-down list, select the DTMF tone to be sent when the On-hook key is pressed.

In order to disable the DTMF tone, select "Not used".

5.11.2 Send DTMF Tones when Pressing/Releasing the PTT Button

1 Select Settings > DTMF.

2 In the Push to talk DTMF tones drop-down list, select "On".

3 In the PTT DTMF ton on push drop-down list, select the DTMF tone to be sent when pressing the PTT button.

4 In the PTT DTMF ton on release drop-down list, select the DTMF tone to be sent when releasing the PTT button.

In order to disable the DTMF tones, select "Off" in the Push to talk DTMF tones drop-down list.

5.12 Uploadable Language

It is possible to upload one additional language to the handset. The language file is generated via an Excel file. The Excel file used to generate language files is delivered from your supplier.

Note: If another language file is uploaded, the first additional language is overwritten.

Certain special characters are allowed when generating the language file, see information in the Excel file.

To upload an additional language, the WinPDM/CPDM3 is used, go to the devices tab and select handset(s). In the Device menu, select "Upload language...".

1.This function requires 3rd party conference unit.

A parameter can be altered to match the uploaded language. The parameter controls:

- The characters available for text input
- The sort order in the phonebook.

This parameter is only used when Language is set. The parameter can be found in the "Settings" folder.

5.13 Personalizing the Menu

It is possible to customize the handset's menu by turning certain menus On or Off. This is done in the WinPDM by editing a template (or a Number setting) for the corresponding handset (or Number).

The path to these settings in the template depends on the version of the parameter definition file (.def). In the current version the path is:

Customization > Visibility > X

where "X" can be Messaging, Favourites, etc.
The parameters are found under "X".

The settings for the parameters may have three alternatives, such as:

- Show
- Hide all
- Read only (All settings can be viewed but not modified by the handset user)

5.13.1 Show/Hide Missed Call Window

A missed call is by default indicated by a Missed call window. It is possible to hide this window and is recommended if a user has, for example, both a handset and a mobile.

Example:

If configured in the PBX, an incoming call to the handset can either be answered using the handset or mobile. If the user answers the call using the mobile, the Missed call window will not be displayed in the handset.

1 Select Settings > Answering.

2 In the Show missed calls popup drop-down list, select "No" to hide the Missed call window

5.14 Configure Handset Restrictions

5.14.1 Enable/Disable Mute Function

It is possible to prevent that the handset is muted by a user.

1 Select Customization > Phone restrictions

2 In the Possible to turn off sound drop-down list, select one of the following:

- Yes - The mute restriction is disabled.
- No - The user will not be able to mute the handset or set the ring volume to silent.

5.14.2 Enable/Disable Switch Off Function

It is possible to prevent that the handset is switched off by a user.

1 Select Customization > Phone restrictions

2 In the Prevent switch off handset drop-down list, select one of the following:

- Yes - The user will not be able to switch off the handset by pressing the On-hook key.
- No - The switch off restriction is disabled.

5.14.3 Enable/Disable Call List

It is possible to prevent that the handset stores outgoing calls and incoming calls in the Call list. This can be useful to prevent that an unauthorized person views the call list.

1 Select Customization > Phone restrictions

2 In the Possible to enable call list drop-down list, select one of the following:

- Yes - The handset will store the calls in the Call list
- No - The handset will not store any calls in the Call list

Note: Old incoming and outgoing calls (if any) will not be deleted in the Call list when setting the parameter to No. It is recommended to clear all call lists (if any) to ensure that no old calls are stored..

5.15 Actions when Handset Placed in Charger

-

5.15.1 Action when not in Call

The handset can be configured to perform an action when it is placed in a charger. The selected action is only performed when no call is established. When the handset is removed from the charger, it returns to previous settings.

1 Select Connections > In Charger

2 In the In charger action drop-down list, select one of the following:

- No action - no action will be performed when handset is placed in charger
- Switch off - the handset will be switched off when placed in charger
- Redirect - the handset will redirect all calls and messages when placed in charger. NOTE: The destination number must be programmed in the PBX to be able to redirect calls/messages.

- Change profile - the handset will change profile when placed in charger.
  In the Change to profile drop-down list, select the profile to be used. By default, only the profile Normal is selectable. If configured, additional profiles will be visible, see 5.34.1 *User Profiles* on page 36.

- Sound off - the handset will be silenced when placed in charger.
  Note: Messages with breakthrough (for examples messages with high/alarm priority) will not be muted.

5.15.2 In Charger Action when in Call

The handset can be configured to end a call, or turn on the loudspeaker when it is placed in a charger during a call. If the handset is removed from the charger during the call, it will not return to previous settings.

1 Select Connections > In Charger

2 In the Call behaviour drop-down list, select one of the following:

- No action - no action will be performed when handset is placed in charger
- End - the handset will disconnect calls when placed in charger.
  NOTE: Some systems/PBXs require that the handset sends a DTMF tone in order to end a call, See 5.11.1 *Send DTMF Tone when Pressing On-Hook key* on page 24 for configuration.

5.16 Put on Loudspeaker - the handset will activate the loudspeaker mode when placed in charger.Clear Lists when inserted in Charger

The handset can be configured to clear lists when placed in a charger. The following message and call lists will then be cleared:

- Inbox
- Unsent
- Sent
- Call list
- Missed calls

Using the WinPDM and the "Edit template" feature, the parameter can be found at
Connections > In_Charger > Clear_Lists_In_Charger
in a template or parameter definition file (.def).

The default setting for "Clear list in charger" is "Off". The feature is activated by changing the parameter value to "On". When the feature is enabled, the lists are cleared when the handset is placed in the charger.

5.17 Disable of Homebase GAP Registration

When the feature is disabled, it is not possible to register to a home base.

Using the "Edit template" feature in the WinPDM/CPDM3, the parameter can be found at
Systems > Home_Base_Subscription.

The parameter shall be set to "Enable" for registration of a new homebase station. The default value is "Disable".

5.18 Require Encrypted Base Station

The handset can be configured to set up calls via encrypted base stations only. This is used to avoid snooping in the telephony network.

Requirements:

- The encryption is enabled in the base station. See corresponding manual for the base station.

Using the "Edit template" feature in the WinPDM, the parameter can be found at:

Systems > Encryption required.

When the parameter is set to "Yes", only call setup via encrypted base stations are possible. The default value is "No".

5.19 Base Station Location

An approximate location of the handset is possible to sent along with an alarm. The handset evaluates the field strength ratio of the individual radio Base Stations and sends the best-rated Base Station ID to indicate an approximate location of the handset.

In addition, a system can also request the Base Station ID regardless if an alarm is sent or not. See 5.20 *Poll Location* on page 28.

Using the "Edit template" feature in the WinPDM, the parameter can be found at:

Location > Base station positioning

Note: The standby time for the handset will be lower when Base station location is activated.

5.20 Poll Location

A system/application can request a location of a handset. When location of the handset is requested, the handset sends its approximate location (Base Station positioning enabled). If Base Station positioning is enabled, the handset sends the best-rated Base Station ID together with the time since it was received. See also 5.19 *Base Station Location* on page 28.

5.21 Site Survey Tool

See the *User Guide for Site Survey Tool.*

5.22 Common Alarm Settings

Note: This feature is applicable for DT423/DT433 only.

The parameters described in this chapter are applicable for all alarm types. See also *5.23 Push Button Alarm* and *5.24 Man-Down Alarm and No-Movement Alarm* for additional parameter settings.

In a template or Number in WinPDM/CPDM3, the parameters for activation are found at:

Alarm > Common

Parameters in the current version are:

- Password protect ALS
  Determines if a password is required to turn off the ALS
- Number for automatic call after alarm
  Determines which number the handset automatically shall call after an alarm is sent.

5.23 Push Button Alarm

Note: This feature is applicable for DT423/DT433 only.

It is possible to configure how alarms shall be handled in a system. An alarm can be activated by a user in two different ways:

- A single long press
- Multiple press

The following alarm types are handled:

- Push-button alarm
- Test alarm

In a template or Number in WinPDM/CPDM3, the parameters for activation are found at:

Alarm > Alarm on long press
Alarm > Alarm on multiple press

Parameters in the current version are:

- Alarm type for long press
  Test alarm, Push-button Alarm 1, or Push-button Alarm 2, or Not used.
- Alarm type for multiple press
  Test alarm, Push-button Alarm 1, or Push-button Alarm 2, or Not used.
- ALS[1]
- Automatic call after alarm mode
  The call can be established in the following modes;
  - Normal: the call is established as an ordinary call.
  - Loudspeaking: the loudspeaker on the backside of the handset is turned on.

See also 5.22 *Common Alarm Settings* on page 28 for additional parameter settings.

Information about the handset's location can also be sent along with an alarm, see 5.19 *Base Station Location* on page 28.

5.24 Man-Down Alarm and No-Movement Alarm

Note: Man-down and No-movement alarm are only applicable for DT423/DT433.

Man-down alarm: If the handset is tilted 45 degrees[2] or more for a preset time (default 7 seconds), the Man-down alarm will be triggered.

No-movement alarm: If no movement is detected during a preset time (default 30 seconds), the No-movement alarm will be triggered.

In a template or Number in WinPDM/CPDM3, the parameters for activation are found at:

Alarm > Man-down and No-movement alarm

The alarms can also be activated in the handset, see the handset's User Manual.

Parameters in the current version are:

- Man-down alarm
  Determines if the Man-down alarm shall be enabled or disabled.

1. The ALS will not be activated if an automatic call is established after an alarm has been sent.
2.The accuracy is +/- 10 degrees.

- Man-down detection time
  Determines when the warning phase will start after man-down is triggered.
- No-movement alarm
  Determines if the No-movement alarm shall be enabled or disabled.
- No-movement detection time
  Determines when the warning phase will start after No-movement alarm is triggered.
- Warning phase duration
  Determines the time before the warning phase is ended and the alarm is sent.
- ALS[1]
- Automatic call after alarm mode
  The call can be established in the following modes;
  - Normal: the call is established as an ordinary call.
  - Loudspeaking: the loudspeaker on the backside of the handset is turned on.

See also 5.22 *Common Alarm Settings* on page 28 for additional parameter settings.

Information about the handset's location can also be sent along with an alarm, see 5.19 *Base Station Location* on page 28.

5.25 Sound Settings for Calls

It is possible to set the ring volume and ring signal for calls.

5.25.1 Set Ring Volume

1 Select Settings > Sound and Alerts.

2 In the Ring Volume drop-down list, select the ring volume to be used.

5.25.2 Set Ring Signal

1 Select Settings > Sound and Alerts.

2 In the call drop-down lists, select the ring signal to be used for the different calls.

3 In the Internal Call/External Call/Callback/PTT [2]Call drop-down lists; select the ring signal to be used for the incoming call, respectively.

Tip: It is possible to create own ring signals, and then select the signal see *5.25.3 Create Custom Sound as Ring Signal*.

5.25.3 Create Custom Sound as Ring Signal

The handset can play customized ring signals. The ring signals must first be customized before it can be selectable in *5.25.2 Set Ring Signal*.

Note: Custom sounds can also be used as message alerts. It is recommended to not use same sounds as ring signals and message alerts in order to distinguish them from each other. For more information how to use custom sound as message alert, see 5.26.1 *Configure Message Alerts with Beep Codes* on page 32.

1 Select Settings > Custom Sounds > Custom Sound X (where X represents 1 - 10).

1. The ALS will not be activated if an automatic call is established after an alarm has been sent.
2.This function requires 3rd party conference unit.

2 Set the following parameters:

- Label - The name of the custom sound (required). The name will be visible when selecting the custom sound as ring signal later on.
- Melody - The text string represents a non-polyphonic sound. By default, examples of melodies text string are set for Custom Sound 1 - 7. See also Appendix A: *Programming Custom Sound* on page 44.
- Beat - The tempo in beats per minute to be used when playing the sound.
- Style - The ratio of note to rest period to be used when playing the sound.
- Instrument - The instrument to be used when playing the sound.

3 Select which custom sound to be used as ring signal by following the instructions in *5.25.2 Set Ring Signal*.

5.26 Messaging Settings

It is possible to configure how incoming messages shall be indicated and displayed in handset. The parameters can be found at:

Settings > Sound and Alerts

- Vibrate alert
  Determines if the handset shall vibrate when receiving incoming calls and messages.
- Message alert
  Determines the message sound for incoming messages. It is possible to select a predefined melody (Message 1 - Message 7) or a beep code that represents a certain sound. For more information on how to configure sounds with beep codes, see 5.26.1 *Configure Message Alerts with Beep Codes* on page 32.
- Message alert during call
  Determines if a message alert should be played when receiving a message during a call.
- Message volume
  Determines the message volume for incoming messages. By default, the message volume follows the ring volume, but another message volume can be set with this parameter.
- Vibrator for message during call
  Determines if the handset shall vibrate when receiving messages during an ongoing call. The Vibrate alert parameter must also be enabled if the handset shall vibrate when receiving a message during the call.

Settings > Messaging

- Text size
  Size of the message text when viewing and writing messages.
- Message List representation
  Can be set to text or number.

Settings > Display

- Rotate display text
  Determines if incoming messages shall be displayed upside down. This can be useful if you wear the handset in a belt and want to read the message without rotating the handset. When pressing any key, the messages will be displayed in the normal way.
  Note: This setting also affects how incoming calls shall be displayed.

5.26.1 Configure Message Alerts with Beep Codes

The handset can map beep codes sent from a system/an application to different message alerts.

Beep code sent from a system/application	**The handset plays:**
Beep code 0	No message alert is played
Beep codes 1- 6	1 - 6 beeps
Beep code 7	Siren

Beeps according to beep code

.

Beep code sent from a system/application	The handset plays:
Beep code 0	No message alert is played
Beep codes 1- 6	1 - 5, and 10 beeps
Beep code 7	Siren

The handset will play the original message alerts that are mapped to the beep codes.

1 Select Settings > Sound and Alert.

2 In the Message alert drop-down list, select "Beeps according to beep code".

Enhanced beeps according to beep code.

Beep code sent from a system/application	The handset plays:
Beep code 0	No message alert is played
Beep codes 1 -3	1 - 3 beeps
Beep code 4	3 tones chime
Beep code 5	10 beeps
Beep code 6	Alarm sweep
Beep code 7	Siren

The handset will play extended message alerts that are mapped to the beep codes.

1 Select Settings > Sound and Alert.

2 In the Message alert drop-down list, select ,"Enhanced beeps according to beep code",

Custom sounds according to beep code

The handset can play customized message alerts that are mapped to beep codes. The message alerts must first be customized and then mapped to the beep codes.

Tip: It is recommended to use this feature if you want to create a message alert that sounds like the equipment (for example a respirator) that generates an alarm..

Beep code sent from a system/application	The handset plays:
Beep code 0	No message alert is played
Beep codes 1- 7	Corresponding Customized sound

Create Customized Sound

1 Select Settings > Custom Sounds > Custom Sound X (where X represent 1 - 10).

2 Set the following parameters:

- Label - The name of the custom sound (required). The name will be visible when mapping the custom sound to a beep code later on.
- Melody - The text string represents a non-polyphonic sound. By default, example of melodies are set for Custom Sound 1 - 7. See also Appendix A: *Programming Custom Sound* on page 44.
- Beat - The tempo in beats per minute to be used when playing the sound.
- Style - The ratio of note to rest period to be used when playing the sound.
- Instrument - The instrument to be used when playing the sound.

Map Beep Codes to Customized Sounds

1 Select Sound and Alerts > Custom Message Alert

2 In the Beep code drop-down lists, select the customized sounds to be used for respectively beep codes.

Enable Customized Sound

1 Select Settings > Sound and Alert.

2 In the Message alert drop-down list, select ,"Custom sounds according to beep code",

5.27 Services

From WinPDM/CPDM3, it is possible to configure up to 10 services that can be reached from the Services menu. It is also possible to configure soft keys to reach services quickly. A list of predefined functions are available such as Phone call, Send message etc.

5.27.1 Add Service

1 Select "Services".

2 Select the service (1 - 10) to be configured.

3 In the Name field, enter the name of the service. It will be displayed in the telephone.

4 In the Type drop-down list, select the function to be used.

5 If needed, in the Number field, enter the destination number for the message/ call/data. The following values can be entered in the Number field: Digits 0-9, #, *, P – pause, H – hook.

TIP: If the Phone call function was selected, an additional character U can be entered in the Number field. The handset will prompt for user input with the possibility to enter numerical characters before a call is established (procedure call).

6 If needed, in the Prefix field, enter the prefix to be used.

5.27.2 Delete Service

1 Select "Services".

2 Select the service (1 - 10) to be deleted.

3 In the Name field, delete the name of the service.

5.28 Protect registration from user deletion

It is possible to protect or unprotect a registration from deletion via the handset menu by altering the parameter “Protected flag”. In a template/Number, the parameter is found at:
Systems > System X > Registration data.

5.29 Emergency Call Number

This is a phone number for emergency calls. It is always possible to call this number, regardless of whether phone-lock or key-lock are active or not. The parameter is found in a template/Number in the "Settings" folder.

5.30 Audio adjustment

It is possible to configure microphone gain and side tone to achieve optimal audio quality for each working environment.

The following parameters can be found at:

Audio > Normal

- Normal side tone adjustment - Determines how much of the speakers voice that is fed back to the speaker.
- Normal mic adjustment - Determines the microphone sensitivity, that is, how much sound the microphone shall gain.

The parameter settings affect the “normal” mode. That is; neither wired headset, Bluetooth headset nor handsfree/loudspeaking mode.

For configuration of headset audio see, 5.31 *Headset configuration* on page 34.

Note: Changing these parameters may result in lower sound quality and high sound level. Evaluate carefully before applying.

5.31 Headset configuration

A headset is recommended if you frequently use the handset and/or want to have both hands free. The headset comes in one version, that is, microphone on a boom.

5.31.1 Selection of Headset Type (Corded Headset)

In order to achieve optimal audio quality with the different headset types, it is recommended to set the corresponding headset type. The default setting is "microphone on a boom", which means that the audio is optimized for using a headset with microphone on a boom. The headset type can be changed as follows:

1 Select Connections > Headset.

2 In the Headset type drop-down list, select the corresponding headset type to be used.

If "User headset profile" is selected, continue with chapter *User headset profile*.

User headset profile

If the preconfigured headset profiles does not match the headset or the audio performance is bad, it is possible to configure a headset profile.

1 Select Connections > Headset > User headset profile.

2 In the Name of user headset profile field, enter an appropriate name. The name will be visible and selectable in the handset menu.

3 In the Headset mic adjustment drop-down list, select the microphone gain to be used.

4 In the Headset speaker adjustment drop-down list, select the speaker gain to be used.

Note: Changing these parameters may result in a very high sound level which can cause hearing damage. In addition, these parameters may result in lower sound quality such as noise and echo. If the audio problems occur, it is noticeable for the person listening on the conversation. Evaluate carefully before applying.

5.32 Display New Messages and Call Information Upside Down

New messages and information about incoming calls can be displayed upside down. This can be useful if you wear the handset in a belt and want to read the message/call information without rotating the handset. When pressing any key, the messages will be displayed in the normal way.

1 Select Settings > Display

2 In the Rotate display text drop-down list, select one of the following:

- On - New messages and call information will be rotated 180 degrees.
- Off - Disables the rotation function.

5.33 Owner identification in the idle display

It is possible to add owner identification in idle mode of the handset. In a template or Number, the parameter is found at:

Settings > Owner ID

Tip: It is also possible to configure the Owner ID via the handset menu. See the handset´s User Manual.

5.34 Profiles

5.34.1 User Profiles

It is possible to set up an own profile for incoming calls, message alerts, vibrating alerts, key sound etc. This can be useful when there are several users on the same handset and they want different handset settings. It can also be used for temporarily settings, for example while in a meeting where incoming calls should be silent.

1 Select User Profiles > User Profile X (where X represents 1 - 4).

2 In the Name text field, enter the name of the profile.
The name will be visible in the handset and will also be a selectable option in User Profiles > Active Profile.

3 Select the settings to be edited. For example Sound and alerts, Soft keys etc.

4 If wanted, select the profile to be activated in the handset by selecting User Profiles > Active Profile.

Tip: It is also possible to configure profiles via the handset menu. See the handset's User Manual.

5.35 Shortcuts

It is for example possible to define the soft key to make a call by selecting the Phone call function. When configuring the Phone call function, the following values can be entered: Digits 0-9, #, *, P – pause, H – hook. U - the handset prompts for user input with the possibility to enter numerical characters before establishing a call (procedure call).

Shortcuts are configured via parameters in the "Shortcuts" folder.

Note: When programming Soft keys both name and function must be set.

Tip: It is also possible to configure shortcuts via the handset menu. See the handset's User Manual.

5.36 Push-to-Talk (PTT)[1] Group Call

Note: Messaging group(s) must be defined in the CPDM3. See corresponding Installation and Operation Manual. Additionally, some legacy systems require that the handset sends DTMF when pressing/releasing the PTT button, see 5.11.2 *Send DTMF Tones when Pressing/Releasing the PTT Button* on page 24.

To be able to call a PTT group, its properties must also be set. Using the WinPDM or CPDM3 and the "Edit template" feature, and select Push to Talk > PTT X (where X represents the groups 1 to 10).

The following parameters can be set:

- Group number – The Messaging group number that is defined in CPDM3.
- Display text – This text appears in the display when the PTT group call is connected.
- Indication – Depending on the handsets in a PTT group, they may receive the PTT invitation as a message.
- Conference number – The phone number to the conference bridge (PTT server) that is provided by the system administrator.

1.This function requires 3rd party conference unit.

- Answer mode – Determines if the PTT call shall be automatically or manually answered.
- Speaker mode – Determines if the PTT call shall be answered in loudspeaker mode.

6 Administration

6.1 Admin Menu Tree

The handset has a hidden menu for system administrators. The Admin menu contains:

- Software and hardware information, IPEI/IPDI, User ID,.
- DECT link and system information
- Centralized Management status
- Site survey tool
- Fault logging
- Enhanced system menu with ability to alter protection
- Frequency band selection[1]
- Factory reset option

To activate the Admin Menu, enter the Call time screen and press > * < < * <.

Figure 4. on page 39 shows the Admin menu tree for the handset.

1.This option disappears when the frequency band is set.

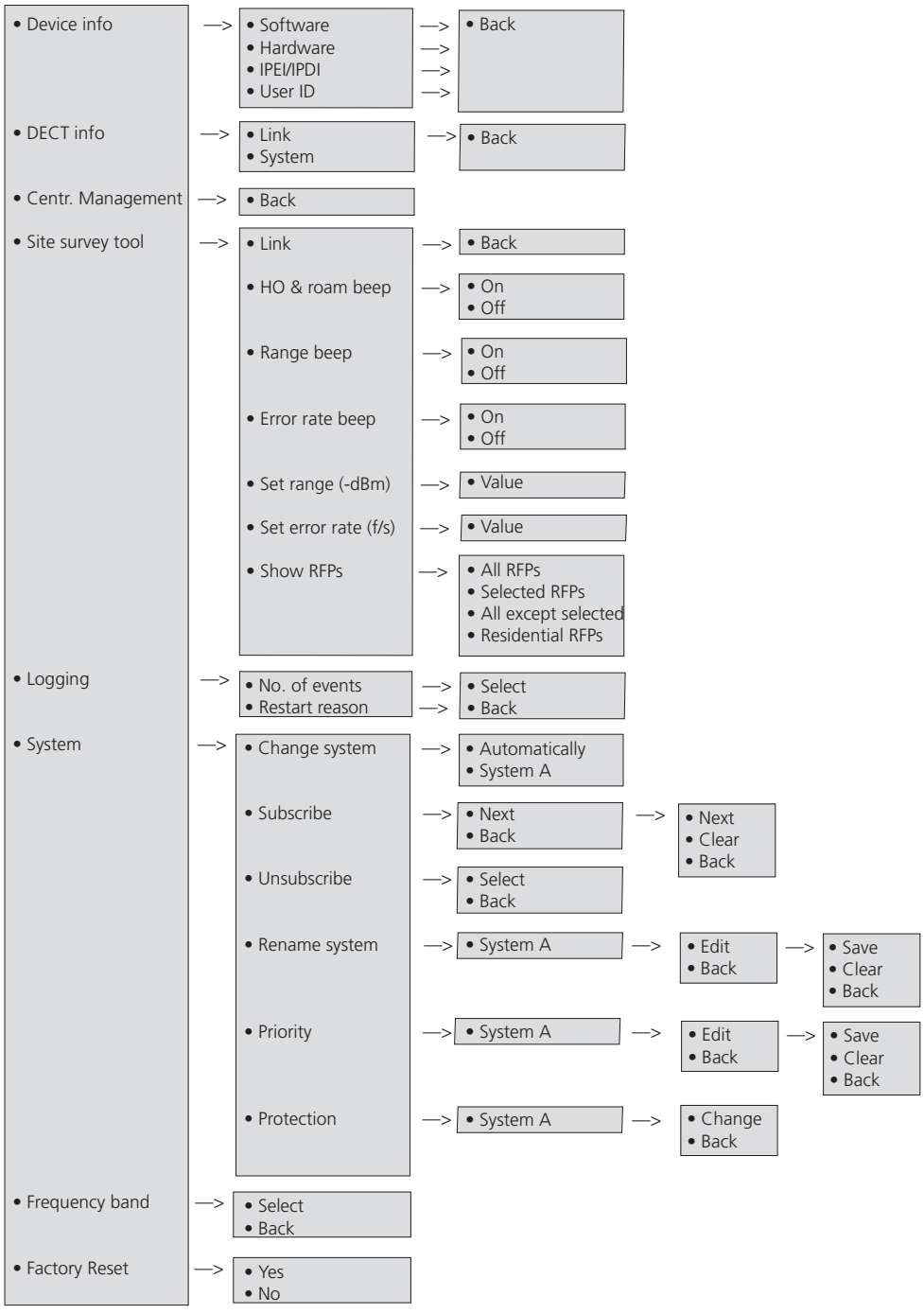

Figure 4. The Admin Menu in DT4x3.

Other menus are described in the handset's User Manual.

6.2 Quick Access to the Handset's Device Information

For quick access to device information, short codes can be used in idle mode. To display this information, enter the following codes in the handset.

For quick access to the Device Information (DI) menu in idle mode, press the keys containing *#DI# (that is *#34#). To view the IPEI/IPDI directly, press *#06#. See the table below.

Information	Code
Software version	*#34#
Hardware version	*#34#
IPEI	*#34# or *#06#
IPDI	*#34# or *#06#
User ID	*#34#

6.3 LED Indications

The following table shows the LED indications that are used for the handset.

LED indication	**Description**
None	Switched off.
Green, fixed	Handset fully charged and in charger.
Green, flashing	Switched on, but not in charger.
Orange, fixed	Charging.
Orange, flashing (1 000 ms on, 1 000 ms off)	Software download.
Red, fixed	Software error. Service needed.

7 Troubleshooting

This section contains information on how to solve common operational problems, and information on warnings you may receive.

Go through the following lists if you encounter any problems. If this checklist does not solve the problem, contact the system administrator.

If other users have similar problems, there may be a system error.

7.1 Fault Symptoms

If any of the following Fault Symptoms occur, follow the instructions below.

Fault	Probable cause	Action or comment
The display stays dark	Low battery level or faulty handset.	Charge the battery. If the handset does not work after charging, contact the system administrator.
There is no ring signal	The handset is muted, the ring volume is set to silent, or faulty handset.	Press and hold the Mute key, or increase volume (Settings > Sound & Alerts > Volume) or contact the system administrator.

7.2 Display Information

The following error messages can be shown in the handset display:

Display shows	Probable cause	Action or comment
No access	The handset is in range, but has no access rights.	Switch off the handset and then switch it on again. If this does not work, contact the system administrator.
No System. The handset beeps once a minute with a low tone followed by a high tone (during max 30 minutes). If the vibrator is enabled, it vibrates after the last beep.	The handset is out of coverage, or faulty handset.	The beeps can be stopped with the mute button. Then go into range. Note: When re-entering the coverage area it can take a couple of minutes before the handset automatically has registered into the system. If this does not work, contact the system administrator.
SERVICE NEEDED Parameters corrupt **Note:** This display message is only shown in English.	Faulty handset.	Select the reset option on the middle soft key. If this is not available or the problem persists send the handset for service.
No flash driver was found **Note:** This display message is only shown in English.	Failed to read from flash	Send the handset for service.

SERVICE NEEDED Hardware error **Note:** This display message is only shown in English.	There is a communication problem between components in the handset.	Restart the handset. If the problem persists, send the handset for service.
SERVICE NEEDED Invalid IPDI **Note:** This display message is only shown in English.	Easy replacement procedure not followed correctly or failure during easy replacement procedure.	Send the handset for service.
Enter PIN code	Phone lock is activated.	Enter the required PIN code. If the PIN code has been lost, enter a new PIN code via the WinPDM/CPDM3 or do a factory reset via the WinPDM/ CPDM3.
Battery low, charge now	The battery level is low.	Charge the handset, or replace or charge the battery.
Phonebook is not available at the moment.	The phonebook is not activated or does not respond.	Try again later or if the fault persists do a factory reset via the admin menu or via the WinPDM/CPDM3. Note that it may take several minutes for the phonebook to be available if there are many entries in Contacts and/or company phonebook.
Voice mail number not defined	There is no Voice mail number defined in the handset.	Define a Voice mail number via the WinPDM/CPDM3.
Could not encrypt connection	The parameter "Encryption Required" is enabled in the handset in combination with; 1) Unencrypted base station(s); and/or, 2) Unsupported base station(s).	1) Disable the "Encryption Required" parameter in handset; and/or, 2) Enable the encryption in the base station(s); and/or, 3) Use supported base station(s). Ask your supplier.
Not allowed	1) The handset with the shared phone functionality enabled cannot be logged in due to another handset using the extension (that is, User). 2) The extension (User) does not exists. 3) The password is not correct.	1) Logout the handset using the extension. 2) Make sure that you entered correct extension. If needed, contact the system administrator. 3) Make sure that you have entered correct password. Ask the system administrator if you have forgot the password.

8 Related Documents

Installation and Operation Manual, CPDM3	25/1531-ANF 901 43
User Guide, Aastra DT4x3 DECT Cordless Phones	1424-EN/LZT 103 089
Installation and Operation Manual, WinPDM,	12/1531-ANF 901 43
Installation and Operation Manual, Desk PDM Charger	20/1531-ANF 901 43
Installation and Operation Manual, Rack PDM Charger	21/1531-ANF 901 43
Site Survey Tool for DECT	33/1531-ANF 901 43

Appendix A: Programming Custom Sound

Before starting programming custom sound, it is recommended to have basic knowledge about notes.

The melody in a custom sound is represented by a text string consisting of several elements.:

Element		Subelement	Values
Note	>	Octave-prefix	*0 (A=55Hz) *1 (A=110Hz) *2 *3 *4 (default) *5 *6 *7 *8 (A=14080 Hz) If no octave prefix is added, the prefix *4 will be used.
		Basic notes	c d e f g a b
		Ess notes (flat notes)	&d &e &g &a &b
		Iss notes (sharp notes)	#c #d #f #g #a
		Duration	0 (Full-note) 1 (1/2-note) 2 (1/4-note) 3 (1/8-note) 4 (1/16-note) 5 (1/32-note)
Silence	>	Rest	r
		Duration	1 to 5 (1 = long pause, 5= short pause)
		Duration specifier	. (Dotted note) : (Double dotted note) ; (2/3 length)

Element	Subelement	Values
Vibration	N/A	Vibeon Vibeoff
Repeat	N/A	@0 (repeat forever) @<number of repetitions>, for example: "@2" repeats the melody string 2 times.

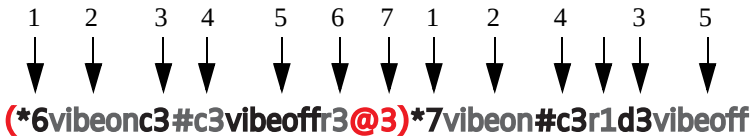

Figure 5. Example of text string.

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1 Octave-prefix

2 Vibration is turned on. The telephone vibrates continuously.

3 Basic note with 1/8 duration

4 Iss note with 1/8 duration

5 Vibration is turned off

6 Short pause

7 The melody within brackets is repeated 3 times before the telephone plays the rest of the melody.

8 Long pause

Note: An intrinsically safe handset cannot vibrate and play notes at the same time due to current limitations. The custom sound must be configured so that the handset alternates between vibration and sound.

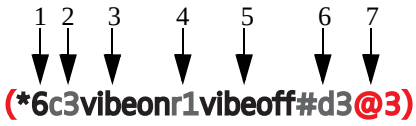

Figure 6. Example of melody string/text string that includes vibrations for intrinsically safe handset.

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1 Octave-prefix

2 Basic note with 1/8 duration

3 Vibration is turned on

4 Pause (must be added between vibration activation/deactivation)

5 Vibration is turned off

6 Iss note with 1/8 duration

7 The melody within brackets is repeated 3 times